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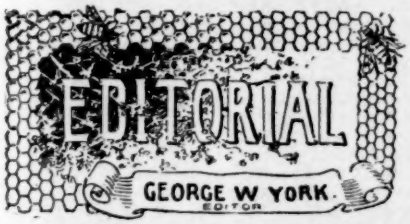


A Great Meeting is what Prof. Cook says they had last month at the California State convention in Los Angeles. He further wrote: "I assure you, apiculture is by no means dead in California. I never was in a more wide-awake meeting of any kind." Prof. Cook is now the President of the California State Association, and we may expect to see apicultural things boom out there. He has kindly sent some very interesting comments on their recent convention that we will publish soon.

Where Honey Comes From was the subject of an address given by Mr. R. McKnight before the Ontario Bee-Keepers' Association last month. He argued that it originally comes from the atmosphere, the leaves of plants and trees "breathing" it in. We hope soon to be able to give the main portion of Bro. McKnight's entertaining address, which showed that he had given the subject much study.

Comb Honey in the U. S.—Some time ago we announced a scheme proposed by *Gleanings*, through which it was thought that a pretty correct estimate could be made of the amount of comb boney annually produced in the United States. It now seems that the scheme could not be made to work, as some manufacturers declined to give their annual output of sections; and Bro. Root also thinks, after all, that the "result" might be "but little better than a good guess." So thought we at the time the scheme was suggested, and yet we felt that probably in helping it along, there might come out of the effort a way in which something reliable could be derived. But now it seems the only way to get at the facts in the case, will be to have the information secured through the township assessors, as suggested by Mr. C. H. Pond, on page 124.

Adulteration—Southern Queens—Bro. J. P. West, President of the Minnesota State Bee-Keepers' Association, wrote us as follows on Feb. 5th:

FRIEND YORK:—I wish to thank you for the notice you gave of the meeting of the Minnesota Bee-Keepers' Association, which was held in Minneapolis on Jan. 10th, 11th, and 12th. We had an excellent meeting, there being about 30 members present, and the Horticultural Society, which was in session all the week, had the best and most enthusiastic meeting they ever held.

I inclose a copy of the law passed last winter by the Legislature of Minnesota in relation to the adulteration of honey. By an unfortunate oversight the State Dairy and Food Commissioner was not aware of the law, until you published Mr. Holmberg's letter in the BEE JOURNAL, in relation to Mr. Hunt's action, but since that time the Commissioner has been doing good work. The action of Mr. Hunt in adulterating honey at the wholesale house of Smith & Austrian, in St. Paul, has aroused the bee-keepers of the State. Our association does not believe in adulteration of honey, or any article of food. The law will be amended next winter, so that such fellows as Mr. Hunt can be brought back to the State, after leaving it, like other criminals,

and punished. Hunt doesn't stand in Minnesota any better than any other person who has violated her laws, and we believe it is our duty to protect the community from such dishonest practices.

The law also needs to be amended so that the Dairy and Food Commissioner can "seize" the adulterated honey, as provided in the laws in relation to other adulterated articles of food found in the State. Any one desiring any information about Mr. Hunt's transactions in the adulteration of honey in St. Paul, can get a *few* pointers from me; and I will say that a man who will do what we know that he has done in Minnesota, will need watching wherever he is.

The question came up in our meeting as to the comparative merits of queens reared in the South and North, and was thoroughly discussed. It was unanimously decided that queens from the South, as a general thing, do not compare with Northern reared queens for hardiness. It was the advice of all the old bee-keepers present to purchase queens as far North as possible, for Minnesota. Yours truly,

J. P. WEST,
Pres. Minn. B.-K. Association.

It seems to us that the question of Southern-reared queens being less hardy than Northern ones, ought to be settled one way or the other, as there would be injustice done to our excellent Southern queen-breeders if it were not true. We should be pleased to have reports of experience in this matter, for we certainly do not want to be unjust to those who rear fine queens in the South. What is your experience "along this line," friends?

For the aid and guidance of those who are attempting to get State legislatures to pass an anti-adulteration law in the interest of honest honey, we here reproduce the Minnesota law, as sent us by Pres. West. It is as follows:

CHAPTER 21, GENERAL LAWS OF MINNESOTA FOR THE YEAR 1893.

An Act in relation to the sale of honey compounded or adulterated, and to prevent fraud, and to preserve the public health.

Be it enacted by the Legislature of the State of Minnesota:

SECTION 1. It shall be unlawful for any person or persons within the State of Minnesota, to offer for sale, or have in their possession with intent to sell, sell or cause to be sold honey compounded, manufactured from, or mixed with glucose, sugar syrup of any kind, or any substance whatever, not the legitimate and exclusive product of the honey-bee, unless the package containing the same is so marked and represented as such, and bearing the label upon the package printed thereon in heavy Gothic capitals, 18 point, the name of the person or persons having compounded, manufactured or mixed the same, and the name of the substance or material from which it is compounded, manufactured or mixed with.

SEC. 2. It shall be unlawful for any person or persons within the State of Minnesota to offer, or have in their possession for sale, sell or cause to be sold honey which has not been made by the bees from the natural secretion of flowers and plants, but which has been stored or made by the bees from glucose, sugar syrup or any other material or substance fed to them; unless the same is marked, represented and designated as such, and bearing a label upon each package printed in heavy Gothic capitals, 18 point, thereon, the name of the person or persons who fed, or caused to be fed, the substance or material from which the said honey is stored or made.

SEC. 3. Any person or persons violating Sections 1 and 2 of this Act, shall be deemed guilty of a misdemeanor, and upon conviction thereof, be punished for each offense by a fine of not less than $15, or more than $100, or by imprisonment in the county jail not exceeding 30 days, or both such fine or imprisonment.

SEC. 4. The having in possession by any person or persons or firm any honey compounded, manufactured or mixed as hereinbefore described, or any honey stored or made by the bees as hereinbefore described, and not labeled as provided in this Act, shall be considered *prima facie* evidence that the same is kept in violation of the provisions of this Act.

SEC. 5. It shall be the duty of the State Dairy and Food Commissioner and his assistants, experts, chemists and agents by him appointed, to enforce the provisions of this Act.

SEC. 6. The said Commissioner and his assistants, experts, chemists, and others by him appointed, shall have access, ingress and egress to all places of business and buildings where the same is kept for sale. They shall also have power and authority to open any package, car or vessel containing such articles which may be manufactured, sold or exposed for sale in violation of the provisions of this Act, and may inspect the contents therein, and take samples therefrom for analysis. All clerks, book-keepers, express agents, railroad agents, or officials, employes or common carriers, or other persons shall render them all the assistance in their power, when so requested, in tracing, finding or discovering the presence of any prohibited article named in this Act. Any refusal or neglect on the part of such clerk, book-keeper, express agent, railroad agents, employes or common carriers to render such friendly aid, shall be deemed a misdemeanor, and be punished by a fine of not less than $25, or more than $50, for each and every offense.

SEC. 7. In all prosecutions under this Act, the costs thereof shall be paid in the manner now provided by law, and such fine shall be paid into the State treasury.

SEC. 8. All Acts and parts of Acts inconsistent with this Act are hereby repealed

SEC. 9. This Act shall take effect and be in force from and after its passage.
Approved April 17, 1893.

Now let there be a general effort made to have such a law as the above enacted in every State where now no such law exists; and then let bee-keepers see to it that the proper officers enforce it to the very letter. Every bee-keeper should help in doing all that can be done to put a stop to the adulteration of their product, and, in fact, all food products.

"The Best Foundation—How to Make It," is to be the "special topic" of the March *Bee-Keepers' Review*. The February issue of that excellent monthly, is devoted principally to the discussion of the cause and cure of foul brood. Hon. R. L. Taylor covers the ground pretty thoroughly in his article on "Foul Brood—Its Symptoms and Cure." As this article comes under the head of "Work at Michigan's Experimental Apiary," and is another of Mr. Taylor's interesting "reports," we will soon give it a place in these columns.

So far we have endeavored to give Bro. Taylor's valuable reports of experiments as wide a hearing as possible; all of them, however, having first published in the *Review*, by reason of a previous arrangement between Bros. Hutchinson and Taylor.

Bee-Keeping as a Study.—At last the University of California is to have a class in apiculture. We learn that it is to be under the direction of Prof. Woodworth, and the first class is to have four pupils. This is not a bad beginning; it is to be hoped that with a practical bee-keeper as instructor, along with the teachers in the entomological department of the University, the students in bee-culture will make rapid strides in the science, and be a credit to the State where bees are supposed to be as thick as flies in summer.

While we are pleased to know that the University of California is to do something for apiculture at last, still, we feel that institution did not do anything in this direction until Prof. Cook located in that State, and announced that he was going to keep a few colonies of bees at the college where he is engaged to teach, in the southern part of the State. The action of the recent bee-keepers' convention in California, which adopted a resolution asking for the establishment of an apicultural experiment station in the State, and that Prof. Cook be recommended as a suitable person to take charge of the same, may have had something to do with hurrying the State University to start its class in bee-keeping. However this may be, the bee-keepers of that State will hail the "innovation" with pleasure, and exclaim, "'Tis better late than never!"

The Ontario Convention was held in January, and a very profitable meeting it was. The following are the Officers and Directors elected for the ensuing year:

President—A. Picket, of Nassagaweya.
Vice-President—R. F. Holtermann, of Brantford.
Secretary—S. Corneil, of Lindsay.
Treasurer—Martin Emigh, of Holbrook.
Foul Brood Inspector—Wm. McEvoy, of Woodburn.
Sub-Inspector—F. A. Gemmill, of Stratford.
Auditors—J. Alpaugh, of St. Thomas, and S. T. Pettit, of Belmont.

DIRECTORS.

District No. 1.—W. J. Brown, Chard.
" " 2.—J. K. Darling, Almonte.
" " 3.—M. B. Holmes, Athens.
" " 4.—Allen Pringle, Selby.
" " 5.—S. Corneil, Lindsay.
" " 6.—Wm. Couse, Streetsville.
" " 7.—D. Chalmers, Poole.
" " 8.—F. A. Rose, Balmoral.
" " 9.—J. B. Hall, Woodstock.
" " 10.—R. McKnight, Owen Sound.
" " 11.—John Myers, Stratford.
" " 12.—E. O. Jones, Kertch.
" " 13.—R. H. Smith, Bracebridge.

Stratford was chosen as the place for holding the next meeting.

Discussing Bee-Papers at conventions is an idea mentioned in one of the January *Review's* editorials. Here is what Bro. Hutchinson thinks about it:

Bee journals are seldom discussed at bee conventions; there being a feeling that it is not good taste—that the commendation of one journal is a reflection upon the editors of the others. Hives, smokers, honey-knives, comb foundation of the different makes, non-swarmers, self-hivers, in short everything pertaining to bee-culture are freely discussed with no consideration whatever for the feelings of the inventor or manufacturer. Where is the consistency?

Then, again, one journal may excel in one particular, another in some other direction, and the bringing out of these

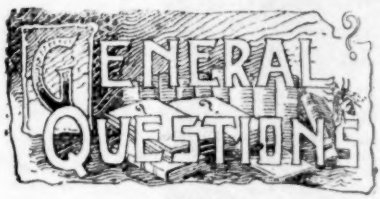
points might not be any disparagement to any journal, yet would aid bee-keepers in their choice of journals. The idea that a bee-journal, or some feature of it, must never be commended, criticised, or discussed in a convention is more a fashion than one of good sense.

Now here's a chance for an honest difference of opinion, and we dare say that Bro. H. stands almost alone in his view of the matter. Of course that's all right, we stand nearly alone sometimes, but this time we think the majority is with us.

Judging from that *Review* editorial, bee-papers would be fit subjects for experiment stations to test, the same as any other bee-keeping utensil or necessity. Now, we'll suppose all of them were sent to the Michigan station to be tested. Bro. Taylor would begin the work, and he'd find that the *Review* is the only one that publishes his reports of experiments, or those that do copy them won't give what he considers proper credit. Therefore, the *Review* is the best bee-paper—for Bros. Taylor and Hutchinson. Certainly; no one would question that.

Brethren, we are ready at any time to have the BEE JOURNAL discussed with the rest, but what good would come of it? You might as well discuss the character and reputation of John Jones, or Mrs. Grundy, but what would there be gained in so doing?

We regret that we must again differ from Bro. Hutchinson, but really we feel too modest to care for notoriety or advertising to be gained in that way. We prefer to let each reader think and act for himself in the choice of a bee-paper. If he doesn't know enough to know what he wants, why then he certainly wouldn't profit much by reading *any* bee-paper.



ANSWERED BY

DR. C. C. MILLER,

MARENGO, ILL.

In this department will be answered those questions needing IMMEDIATE attention, and such as are not of sufficient special interest to require replies from the 20 or more apiarists who help to make "Queries and Replies" so interesting on another page. In the main, it will contain questions and answers upon matters that particularly interest beginners.—ED.

Honey-Boards and Dummies.

I have been reading "A Year Among the Bees," and it seems to me the author is not definite enough in his details. He says, in putting on the T super, you put on the Heddon skeleton honey-board. Now what is the honey-board? Tell how to make it, and out of what material. If there is a description in the book, I failed to see it. How much space should there be between the brood-combs and the honey-board? Should the super rest on the honey-board? Also, reference is often made to a dummy. What is it, and how is it made? N. F.

Portage, Ohio.

ANSWERS.—When my book was written, slat honey-boards were a necessity. Now, however, better plans for avoiding brace and burr combs have been discovered, and I am getting rid of honey-boards as fast as I can. All that is necessary is to have the top-bars at fixed distances, 1⅜ from center to center, the depth of top-bars ⅞, and the width 1⅛, and ¼ inch space above.

A dummy is simply a board with a top-bar, hung in the hive the same as a comb, so as to fill up the space. It may be ¼ or ⅜ inch thick, and hung at one side of the hive so as to lift out easily and leave room to get out the first frame; or two dummies, each an inch thick, may hang in the place of two combs, so as to make a 10-frame hive contain only eight combs.

Changing the Sex of Bee-Eggs.

It has been argued by some writers on that vexing question of sex of a fertile queen's egg, that the worker-bees change the sex by sweeping off the sperm from an egg laid in a drone-cell, otherwise all the eggs of a fertile queen would produce workers, and therefore the queen has no power to change the sex.

If the queen was taken from a populous hive in summer, and eggs from worker-cells transferred to empty drone-cells, and said

eggs produced drones, it would be pretty conclusive evidence that the queen has not the power to change the sex of an egg that she lays.

My question is this: Do you know if such experiment has been tried, and what the outcome was?

Having been a bee-keeper for 20 years, and a subscriber to the BEE JOURNAL for about that length of time, I have always taken a great interest in all obtuse questions that have been discussed in its columns. T. T.

Lancaster, Pa.

ANSWER.—If my memory serves me correctly, the experiment has been tried, of putting eggs from worker-cells in drone-cells, but always with the result that the eggs hatched out workers. Within the past year a good deal has been said about using drone-cells to rear queens in, but in that case I think larvæ and not eggs have been transferred.

Does it not appear a physical impossibility for the workers to affect the eggs so as to change the sex by "sweeping off" the spermatozoa? For these minute beings are not on the outside of the egg, but enter through the micropyle, the very name of which indicates an entrance so small that a bee's tongue would not be likely to set up business inside.

I think I can give another argument to give a strong leaning in the same direction, although it may not be entirely conclusive. I suppose you know very well that if all the drone-comb be taken from a hive, and every inch be filled with worker-comb, what frantic efforts the bees will make to build a few drone-cells in odd corners, and how the queen will go out of her way to lay in them. You know also that if a drone-laying queen lays eggs in worker-cells, that the bees will go on and rear drones in them, notwithstanding their being in worker-cells. Now if all that is needed to change a worker-egg to a drone-egg is a lick of a worker's tongue, how do you account for the queen's going so much out of her way to lay in remote drone-cells? And if the bees are so very anxious to have drones when there are no drone-cells in the hive, why do they not rear drones in worker-cells, seeing they can do so readily if the right eggs are there?

Putting Foundation in Hives, Etc.

1. When putting sheets of foundation in the brood-nest, should they be put between frames of comb, or on the outside by themselves?

2. If I should put frames containing sheets of foundation in an empty hive, and leave the entrance open so that bees could enter at will, would the wax-moth be apt to damage the foundation, where moths are bad?

3. When bees are divided for the purpose of increasing, what proportion go back to the old stand? For example, if about swarming time, I should take about half the bees and comb from a hive, and put them into a new hive, what proportion of bees should I shake from the combs left on the old stand in order to have them about equal after the old bees return.

Oak Hill, Kans. J. K.

ANSWERS.—1. Sometimes a hive is entirely filled with frames of foundation and no old combs, but if you have both in the hive, and want the bees to make the best work possible on the foundation, put a frame of foundation between two old combs.

2. I don't suppose the bees of other hives would keep the moths away, but if you could get a spider to occupy it, that might do. Better watch pretty close if you try it.

3. All the bees that work in the fields will go back to the old stand, some of them on the second day. If the change is made when the bees are having their play spell, the bees out at play will go back to the old stand. Perhaps you might shake off at the old stand the bees of one or two frames, then about the third day you can shake off more if they are needed. But look out not to leave so few bees in either hive where there is brood, so that the brood will be chilled. Keep in mind that bees will desert the new for the old stand, a day or two after the division.

Combs Built Crosswise.

I bought two colonies last spring, and got no increase and no surplus honey last year. The winter was mild up to Jan. 21st, but cold since then—22 degrees below zero on the 24th. In one hive the combs are built crosswise of three of the brood-frames. What must I do with them, so that I can manipulate all the brood-frames?

Guy, Mo., Jan. 25. E. A. J.

ANSWER.—Lift the other frames out of the way, then lift out the three frames together, and then cut loose that part of each comb where it is attached to the wrong frame, and force it back into its own frame. Possibly the case is so bad that all the combs must be cut out and fastened in the frames as directed in the books for transferring. Of course, it must be warm enough so as not to chill the brood, and so the comb will bend.

The Increase at an Out-Apiary.

In running an out-apiary for comb honey, in your opinion, what would be the best way to manage in increase, being with them a part of the time only?

Logan, Iowa. F. E. H.

ANSWER.—So much depends upon the man and the circumstances that your question is hard to answer. If you have some one to watch for swarms, possibly it might be best to let them swarm naturally. But in an out-apiary you may not desire that. Possibly the nucleus plan might suit you best. You will find this described in the books, the main point being to start a

nucleus with two or more frames of brood and bees, and a young queen or a cell nearly ready to hatch, then let them build up of their own accord, or give them additional combs of brood if you think they will not have time to build up.

Several Questions Asked.

1. Do mice eat live bees?
2. Are combs that have some pollen in them, any good for breeding, if exposed to frost?
3. Does frost kill the germs of the wax-moth? A. B.

Chippewa Falls, Wis.

ANSWERS.—1. Reports have been given where the legs were alive after the abdomen had been eaten.

2. Yes, they're good, frost or no frost.

3. Severe enough freezing will finish them.

Caging Queens—Solar Wax-Extractor

1. I see in a back number of *Gleanings*, that you practice caging the queen at the beginning of the honey-flow. How would it do to remove the queen and allow each colony to re-queen, removing all queen-cells at the time when removing the queen, and all but one nine or ten days after, or give it a queen-cell from your choice queen? If increase is desired, the queens removed can be given to nuclei, and built up during the season. Have you ever tried such a plan? If so, how does it work?

2. Which would be the best to use in a solar wax-extractor, tin or Russian iron, such as is used in stove-pipes? If the iron is best, how would you fasten the screen in?

I have tried the "shoe-string binder," and it gives excellent satisfaction.

DeWitt, Iowa. C. H.

ANSWERS.—1. After a full trial I did not like caging queens. I've never tried exactly the plan you suggest, but it could do no harm to try it.

2. Tin, by all means.

Heating the Cellar for Bees.

This is my first wintering bees in the cellar. Would it be good to heat up the cellar once in awhile, when the temperature in the cellar is from 38 to 41 degrees? The bees seem to be pretty quiet.

I have all my bees in 10-frame Simplicity hives; would it be good to take the covers off, if the strongest colonies and those close to the wall show a little dampness between the quilt and the cover, and if the outside frames are a little moldy? I have 20 colonies in the cellar, and the cellar is under the house. I have made a good air-tight partition between the bee-cellar and the vegetable-cellar. The bee-cellar is 10 feet wide, 9 feet high, and 22 feet long, but I have no ventilation in the bee-cellar. For the last 5 years I have wintered my bees on the summer stands, but I thought to try cellar-wintering once.

Minnesota. O. G.

ANSWER.—Yes, it might be a good plan to heat up the cellar once in awhile. Don't be alarmed if it seems to stir up the bees a little at first, providing they are quiet afterward.

You may find that the fire will help dry out the dampness, or you might put some little thing, like a nail, under the cover so as to raise it an eighth or a quarter of an inch.

Bee-Stings for Rheumatism.

Are bee-stings good for sciatica, *alias* neuralgia of the sciatic nerves, *alias* sciatic rheumatism, lumbago, and that tired and heavy feeling in the rear of the shoulders? I have not had an attack for one year, but I am not able to do hard work, or to be on my feet more than a few hours at a time. I killed about nine bees last summer to get two to sting my legs, and I was a long time in doing this.

Suppose a fellow would go to a hive with gloves and veil on, cut the drawers (by cutting a strip out) so as to cover only about three-fourths of the leg, and tie with lace; then disturb the bees, what are the chances for the patient? Cure or kill? Is it too much of a risk? J. K.

ANSWERS.—This is one of the questions upon which there is no settled agreement. Some say they have been cured of rheumatism by bee-stings, others say they are no good.

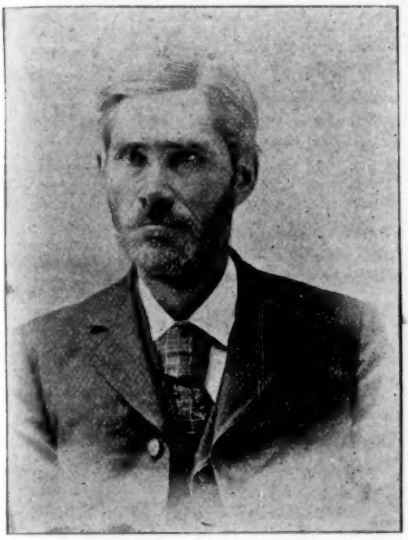
If I were in your place I should try it. There is little chance that any harm could come of the plan you propose.

No. 68.—G. R. Pierce.

The subject of our sketch this week, Mr. G. R. Pierce, was born near the village of Bala, Wales. His parents came to the United States when he was a mere child, and settled in what was then the woods of Wisconsin, but which is now the site of the flourishing and beautiful city of Racine. His father,

Robert Pierce, died in a few months after reaching his Western home. G. R. was too young to retain any recollection of him. His mother afterward married Mr. Thomas J. Evans, also from Wales, who proved to be a father *de facto* as well as *de jure* to young Pierce.

In the early days of its settlement, the present site and vicinity of Racine was covered with a heavy growth of oak, maple, beech, basswood, etc. As



G. R. PIERCE.

the settlers cleared the land about their cabins, they planted fruit trees, and in a few years apples, plums, peaches, etc., were to be found at nearly every homestead. Mr. Pierce has often seen large, luscious peaches, just picked from the trees, sold in the streets of Racine for 25 cents per bushel! Now all this fruit is brought from Michigan.

Bees were not kept as now by specialists, but nearly every settler who was not afraid to handle the frisky insects, kept enough colonies to supply the home wants, and if there was a surplus it was usually taken to town in a tub or churn.

Mr. Pierce's first recollection of bees was when his step-father bought three colonies from Mr. Cram, one of the first settlers in Racine. As the abundant flora of forest and field furnished an abundance of nectar, these colonies soon increased so that their owners, in a few years, had more bees and honey than any one else in the vicinity. His experience with bees in Wisconsin ended in 1861, when he enlisted in the 9th Battery, Wisconsin Volunteers, with which he served until January, 1865.

After his discharge from the army, Mr. P. attended the University of Wisconsin for three years at Madison, spending his vacations in Minnesota, to which State his parents moved; here also they kept a large number of colonies, and one of his brothers, Thomas C. Evans, is still engaged in bee-keeping near the old home at Brownsville, Minn. His father and mother, after a residence of several years in Minnesota, moved to the old homestead at Racine, where they now live and still enjoy keeping a few colonies.

During the past 20 years Mr. Pierce has lived at Blairstown, Iowa. He is a pharmacist by profession, but at present he is engaged solely in bee-keeping. He has devoted much time to the study of the cause, or causes, of bee-mortality in winter, the results of which are set forth in his book, entitled, "The Winter Problem in Bee-Keeping," mentioned on page 227 of this number of the BEE JOURNAL.

Mr. Pierce was married in 1877, to Miss Elizabeth French, and they have three children—Robbie, Ira and Llywellyn.

CONDUCTED BY

MRS. JENNIE ATCHLEY,

BEEVILLE, TEXAS.

Bees by the Pound—Questions.

MRS. ATCHLEY:—Will you kindly answer the following questions?

Rambler once wrote this in the *Bee-Keepers' Review:* "But even the loss of half of my bees during the winter would have but little terror for me, if I could get bees by the pound from the South at a reasonable price, say from 75 cents to $1.00, according to quantity, and delivered by the first of May."

Now, Mrs. Atchley, suppose a specialist living in my latitude (northern Ohio) would lose his bees during a winter, what quantity of bees (by weight) will he need for each depopulated hive? In what kind and size packages sent? and how provisioned and shipped? What would be a reasonable price per package, and how far South will it be necessary to send? When should they be here so that they will make strong colonies for the honey harvest, which commences here from the first to the middle of June?

Lastly, do you think the scheme would be feasible, and profitable as well?

Maumee, Ohio. L. C. JAESSING.

Friend Jaessing, I suppose I am in a position to answer your questions very nearly to the point, as I have been shipping bees by the pound north since 1880. If you wished to build up your bees rapidly, in your latitude, I will say two pounds of bees to the hive, and a good queen, would come very fast if your combs contained ample honey, which I suppose they would. You can build them up with one pound of bees, and likely get a good honey crop.

The bees can be sent in any size packages desired, from one to five pounds, but I would get them in just the size or amount of bees I wanted to put into each hive, and a queen with each.

I now provision my bees with a comb of honey, or with honey enough to last them while in transit. The shipping-box should be very light. They always go by express. A reasonable price in this country is $1.00 per pound, or 75 cents when a large lot is taken. It depends upon where you can get them, how far South you should send. I would get them as near you as I could to save express charges, but 25 cents per pound is about the charge from Texas, when a large lot is taken, and I suppose charges will be less the nearer home you get them.

You should get the bees about 45 days before your harvest begins, in time enough for the second brood of bees to be ready for the harvest; that is, I mean it will be 21 days before bees will begin to hatch, and of course they will be hatching all the time thereafter; but about 40 to 45 days will be required to get them up good and strong for section honey—it would take that long here.

Yes, I just know it would be profitable if you are assured of a good honey year, as I have heard of a single pound of bees so shipped gathering 50 pounds of surplus the same season. I think, however, this depends largely upon the season and the apiarist, and what kind of queens you get.

I would be very glad to be one of two parties trying the scheme of sending bees from the North to this southern country to winter, and then send them back in May, to catch the white clover and basswood honey-flow. If some Yankee schemer will do the work at the North end of this scheme, I will undertake to be Yankee enough to do the work at this end.

Liable to Starve with Plenty of Honey

MRS. ATCHLEY:—We have had a severe cold spell in this part of Texas, which froze a good many bees out. During the freeze I had occasion to remember the reading of an article in the BEE JOURNAL of last spring, that bees very often starved to death with plenty of honey in the hive. This reminded me that I had some colonies in just the condition to "pass in their checks."

When I examined them I found that I was just about right—they had plenty of sealed honey along under the top-bars of the frames, but in order to keep warm the bees had clustered so low down on the combs that they could not reach the honey without leaving the cluster, which they did not seem disposed to do; hence

these bees were in destitute circumstances, with plenty of honey in the hives.

To remedy this condition of affairs, I uncapped some of the sealed honey directly over the bees. I then warmed up the hives, by putting hot rocks on the quilt that covered the frames. This moved the cluster up on the combs so they could have access to the honey, and they came through all right.

I send these hints to the BEE JOURNAL simply to remind some bee-keeper, who is not well up with the times, of what he is liable to suffer.

From what has come under my own observation during very long cold spells, together with what I have read about wintering bees in the North, I am led to the belief that a great many bees die for the want of food.

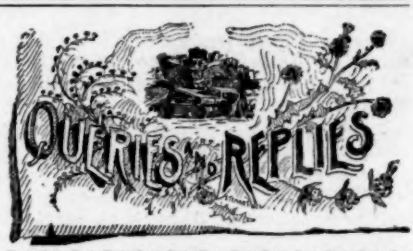
C. B. BANKSTON.

Chriesman, Tex., Jan. 30.

Queens Uninjured in Mailing.

MRS. ATCHLEY:—I see on page 44 that you have taken issue against Mr. Faylor's saying that no queens are any good after being transported through the mails. I will only say, so far as my own experience goes, that I have bought queens from many queen-breeders in this country—some from Massachusetts, some from Texas, and many other places, and have never received a queen in bad condition. They have been prolific and long-lived. The queens of some of the best colonies I have came through the mails. I rear hundreds of queens, but none of them are better than some I get through the mails.

Bockville, Mo. W. A. MCGEE.



Space to Prevent Burr and Brace Combs

Query 911.—1. What is the correct space between the top-bars, so that the least or no brace-combs are built? 2. What is the correct space between the tops of the frames and the upper hive-story, so that the least or no burr-combs are built?—Minn.

⅜ of an inch.—MRS. L. HARRISON.

1 and 2. About ¼ inch.—A. B. MASON.

1. ⅜ inch. 2. ¼ inch.—P. H. ELWOOD.

1. 3/16 to ¼ of an inch.—EUGENE SECOR.

1 and 2. ¼ of an inch.—J. M. HAMBAUGH.

1. ¼ inch. 2. ¼ inch is exact.—J. H. LARRABEE.

1 and 2. About ¼ inch in both cases.—R. L. TAYLOR.

Probably a bee-space—⅝ of an inch.—WILL M. BARNUM.

1. 7/16 of an inch. 2. 5/16 of an inch.—G. M. DOOLITTLE.

I get plenty of brace-combs regardless of conditions.—M. MAHIN.

1. ¼ inch. 2. ¼ inch, or perhaps hardly that.—C. C. MILLER.

1. 1⅛ inches from center to center. 2. ⅜ inch.—S. I. FREEBORN.

1. From ¼ to ⅜ of an inch. 2. About ¼ of an inch.—J. P. H. BROWN.

1 and 2. The orthodox bee-space, scant ⅜ of an inch.—A. J. COOK.

1. I suppose about ⅜ of an inch. 2. About ¼ of an inch.—E. FRANCE.

¼ inch is about the correct answer to both questions.—EMERSON T. ABBOTT.

¼ of an inch to both questions, provided this distance remains invariable.—J. A. GREEN.

We do not care for brace-combs. They are helpful in winter. See our answer to Query 903.—DADANT & SON.

1. There is no doubt that ¼ inch is the correct space. 2. The correct space here also is ¼ inch, and no more is

needed. My experience proves that there is more in these two points than in the depth of the top-bar.—G. L. TINKER.

1. With the Hoffman frame, about ⅜ of an inch between the top-bars. 2. Not more than ⅜ of an inch.—MRS. J. N. HEATER.

If everything could be kept straight and true, I would say barely ¼ of an inch. This answers both questions.—G. W. DEMAREE.

1. A bee-space apart is, in my judgment, the best distance. Some space wider, but I think my idea is about right.—J. E. POND.

1. I think more depends, as to brace-combs, upon the strength of the colony, and the room they have, than upon the space between the top-bars. 2. ⅜ of an inch, rather less than more.—JAS. A. STONE.

1. About 5/16 of an inch, but unless you use the thick ⅞-inch top-bars some brace-comb will be built in time. 2. A bee-space, which long experience has taught me, is about 5/16 inch.—C. H. DIBBERN.

It will be a difficult matter to give the "correct space." I have had the best success with ¼ inch, but not any under ¼. With some bees 5/16 is just about right; with others ¼ is the thing.—H. D. CUTTING.

1. It depends upon how wide your top-bars are. I pay such little attention to brace or burr combs that I am no authority on this question. I use common Simplicity frames ⅞ inch wide. I have no brace-combs to speak of.—MRS. JENNIE ATCHLEY.

Understanding a Locality Important.

Written for the American Bee Journal

BY G. M. DOOLITTLE.

A few days ago I received a letter bearing on an old subject, that of locality, from a bee-keeper having formerly lived in the North, but now removed to the South, telling how much different the seasons were there, etc., the writer closing by saying, "I did not know nor realize before how much was dependent upon this matter of location."

From the many letters of enquiry which I get, it would seem that the matter of location, although an old subject, was a theme which is almost entirely ignored by the great mass of bee-keepers, or, at least, by the greater share of those who write to me asking questions. I had been contemplating, for some little time, writing an article for the AMERICAN BEE JOURNAL, on the understanding of a locality, and as the letter lately received has brought it fresh to mind, I will venture a few words on the subject, hoping that all who read it will be led to look into their locality more closely.

The writer of the letter says, "Different locations require radically different methods of management to obtain success." While all of the rest of his letter I think is sound, I cannot help thinking that this sentence is a mistake, so far as the time of commencing to prepare for the harvest is coucerned, for that should be done in reference to the blooming of the flowers which yield honey, no matter where we are.

In nearly all localities where bees can be kept, there are certain plants or trees which give a yield of surplus honey at a certain time of year, while, aside from this, there is little more honey obtained by the bees than is needed to supply their daily wants. Some localities give a surplus at three stated periods, others at two, while the majority give only one such yield. Hence, it is apparent to all, that if such a honey-yield, or yields, pass

without a surplus, none can be obtained during the season. From this it will be seen that, in order to be a successful apiarist, a person *must* have a knowledge of his or her locality, whether they live in New York, Canada, California, Florida or Cuba, and also how to get the laborers (bees) in the right time, so they can be on hand at the time of the honey harvest. Failing to do this, there is no profit in apiculture, and I cannot see why this will not hold good in any section of the world, except in the time of commencing to secure the bees.

First, then, we have the location. Here in central New York our honey crop comes mainly from linden or basswood, which blooms from July 5th to the 15th, and lasts from five days to three weeks, according to the weather; while in other localities of this State white clover is the main crop, coming in bloom June 15th to the 20th; and again, in others, buckwheat, yielding honey from August 10th to the 20th. Other States, without doubt, have as great a variation as to the time of surplus honey as has this, and it should be borne in mind that it devolves upon the reader of this to ascertain, by careful watching, just when and what is the source of their surplus honey crop, so as to work accordingly.

After having determined just when we may expect our honey harvest, the next step is to secure the bees in just the right time for that harvest—not before or afterward; yet how few pay any attention to this matter, letting the bees take care of themselves, and thus they are generally produced so as to become consumers instead of producers. This is one of the reasons why so many persons who enter the ranks of bee-keeping make a failure of it.

The queen is the mother of all the bees, she laying all the eggs which produce them. She is capable of laying from 3,000 to 4,000 eggs a day, yet often she is laying only from 500 to 1,000 eggs daily, at the time she should be doing her best. After the egg is laid it takes three days for it to hatch into a larva. This larva is fed six days, during which time it has grown so as to fill the cell, when it is capped over and remains hid from view for 12 more days, when it emerges a perfect bee, making a period of 21 days from the egg to the perfect bee. This bee now works inside of the hive for 16 days more, doing such work as feeding the larvæ, building comb, etc., when it is ready to go outside as a field laborer; and at 45 days from the time of hatching it dies of old age, and another generation takes its place.

From the above it will be seen that the egg must be laid at least 37 days before the honey harvest, in order that the bee have the opportunity of laboring in that harvest to the best advantage. Now, if the harvest is white clover, commencing to bloom say June 18th, the eggs for our laborers should be laid on or before May 2nd; if basswood, blooming about July 10th, then the eggs should be laid on or before June 3rd, and so on, for any yield that may come in our locality, whether we are in Canada or Cuba. The principle is the same for all localities where there is an intermittent flow of honey, and I cannot see where any "radical change" of this mode of management can be made, no matter in what part of the world we may have our home.

If there is a steady flow of honey all of the year, during which the bees are active, then we should aim to keep the bees strong in numbers all the time; but where one such place is found fifty others can be found that give large yields only at certain periods, when certain flowers are in bloom. Only as the locality is thoroughly understood, and the bees reared to apply to that locality, can we secure the best possible results. To keep the results obtained, just as few bees should be reared at all other times as is consistent with keeping the colony where it can be gotten in good working order when we wish it, so as to secure the harvest, otherwise we are supporting a horde of useless consumers.

I know this is an old theme, but it is the one which has helped me to secure the results of the past, namely, that of securing a good yield of honey during all the past 21 years; and if understandingly followed it will help others the same as it has me. Try it, brothers and sisters, and see if I am not right.

Borodino, N. Y.

The Cause of Brace-Combs.

Written for the American Bee Journal

BY H. E. HILL.

On page 116, Mr. Cronkleton modestly observes that the sanitary condition of the fraternity would suffer no detriment through the moderate exercise of its mental faculties, and incidentally presents a theory regarding the cause of brace-combs as subject-matter upon which to act, which theory, by virtue of its originality and creditable presentation, is conceded "good," and if Mr. C. will say that the same bees, the same

top-bars, the same spaces between and over the frames, obtained after the introduction of the metal bearings, as before their use, I will be interested to know what kind of bees and top-bars they were.

Brace-combs are a nuisance that have long since ceased to annoy in the manipulation of my hives, though I use, and would not do without, the metal bearing, and have, during the past two years, had a strong colony at a window in a glass hive, in our dining-room, where, by the closing of doors, walking upon the floor and rapping upon the glass, they are jarred and disturbed almost every hour in the day, yet not a brace-comb has been built.

Philosophically speaking, "the bees walking over the combs causes them to tremble;" practically, no. The law of gravitation would defeat the power of even a drone if applied to a five-pound comb.

The solution of the brace-comb difficulty lies in the use of top-bars 1⅛x⅝, dressed on the top and the sides, with a space of 5-16 between, metal or no metal, though inasmuch as the frames will hang more true when the metal is in use, the advantage, if any, would be in favor of metal rabbets, and I feel sure that further experiment will prove to Mr. C. that "metal" has no "bearing" on the brace-comb difficulty.

Titusville, Pa.

Brood-Rearing and Increase of Colonies.

Written for the American Bee Journal

BY C. W. DAYTON.

Mr. Heddon says on page 261 of the *Bee-Keepers' Review*, for 1893: "The experienced well knows the great difference in the working qualities of different strains of bees of the same race or races. .....All of you have noticed the immense difference in the storing-qualities of different colonies in the same apiary."

A difference is just as apparent in their disposition to rear brood and build up in the spring, and also in the laying qualities of the different queens. Often we hear of an apiary where the colonies are generally weak, and there are a few colonies which furnish several combs of brood for the assistance of weaker ones. Where ordinarily prolific queens are able to fill 10 combs with brood, these extraordinary ones occupy 14 or 16 combs distributed in the lower and upper stories.

In Iowa (my former location) where the spring nearly always hangs on late, rainy and cold, the colonies are at their lowest ebb about May 1st, at which time the brood increases from three or four small patches (not enough to fill one comb full) to seven or eight combs full by the beginning of clover bloom, about June 15th, a space of about 45 days.

In California bees enter the most dormant state during October and November, and from this I conclude that it is as well to put bees into the cellar in the month of October as to wait until late in November or December.

If we begin about December 15th to feed one of those extra thrifty colonies in California, it would cause it to rear brood as rapidly as in the North in the middle of June. The great drawback in the North is the cold, rainy weather through the last of April, May, and the forepart of June, so that it is nearly impossible to rear enough young bees to take the place of the rapidly-disappearing old workers. Here, in December and January, these old bees are still young and in their prime, so that one of these extra-promising colonies may be easily encouraged to rear the 14 to 16 combs of brood in the 45 days from December 15th to February 1st. About this time it may be divided into eight nuclei, each containing two combs of brood and bees enough to make them decidedly better colonies than the average colonies in Iowa on the first of June. If we furnish combs, queens and feed again, each one of these colonies may be divided into three parts in 45 days more, or the 15th of March. By the same process we can divide each colony into three parts again on April 15th, June 1st and July 15th, when we will have 128 colonies, which, if allowed to run through the fall, will be able to gather their winter stores from tar-weed, flea-weed, pepper-trees, etc., which yield dark, bitter honey, every year through Augnst, September and October.

If the bees are in a willow or eucalyptus district, during January and February they will be able to find their own feed. Then by moving them into the fruit-belt to pass March, April and May, they will feed themselves again.

In Iowa and Wisconsin there were only a few scattering clusters of willows along the streams, but here are localities where willow exists in a continuous, unbroken jungle several miles in extent. Orange and other fruit blossoms continue to open for three months or more, and every day as the weeks go by is a perfect honey-gathering day.

When the sages begin to bloom there is need of another move, and another for the fall crop. One colony, or even a dozen colonies, may do a thriving business getting honey from a single orange grove or a few willows, where a hundred colonies might starve. In Iowa there often came a cold, cloudy spell that lasted all through fruit-bloom, and it was seldom there were three days at a time that the bees could visit the flowers, so that just about the time the colonies began to pick up a little the flowers were gone.

To increase one colony to 128, in one season, may involve more theory than most readers are willing to credit, but I assure them that what is described in the foregoing is possible up to March 15th, is precisely what I did last season, and what can be done again where queens, combs, weather and feed are a drug on one's hands. If the colonies build their own combs we should divide 128 by 3. If they also rear their own queens, then we should divide by 3 again. If we do not feed, divide again by 3, and what remains is about what a natural, unaided colony can do.

In case it is questioned as to whether there can be the ascribed progress made in 45 days, I quote from Mr. France's report on page 744 of *Gleanings* (1893), where it says: "On April 20 we had snow and cold weather. At that time the queens stopped laying, and do all we could, we could not get those queens to laying again for three weeks," (May 11th). "We commenced to extract the 19th of June,.....extracted very little after the 12th of July." Mr. France's bees built up from very weak colonies and gathered 120 pounds to the colony, all within 60 days.

We often see big reports of increase, and of hundreds of pounds of honey, gathered by single colonies, and though it may mislead or deceive the inexperienced, the experienced always know that there is no telling *how* big the results until the attendant particulars are understood.

The inexperienced, who have only watched a bee-keeper manipulate bees a little, are easily amazed, take up reports and spread them unreservedly. Some six or eight years ago extracted honey sold here for less than 3 cents a pound. That was an amazingly low figure, and was so thoroughly reported that consumers are still expecting to get honey at that price, presumably because California is an amazing country.

When the experienced bee-man is offered 3 to 4 cents a pound for his honey, and the same is retailed at 10 cents a pound by the gallon, he begins to conclude that it is better fun to amaze than to be amazed.

Pasadena, Cal.

That Basis of Honey-Predictions.

Written for the American Bee Journal

BY F. M. MERRITT.

I believe Bro. York has hit the nail (or Sam Wilson) squarely on the head, when he says in his editorial on page 103, under the head of basis of honey-predictions: "The more rain and snow in November and December, the more honey there will be the following season, and if there is no rain and snow in the two months mentioned, there will be no honey." And further on he says: "We believe the above rule for prophesying is for linden, sourwood and white clover honey."

Now let's see how near Bro. York is correct in guessing "Sammy's" secret. I have taken down notes of the weather and temperature since June 12, 1892, but will have to draw some from memory. Before giving these notes, we will go back over the winter of 1891-92. If my memory serves me rightly, the winter of 1891-92 was very mild. I believe there was but little snow, though considerable rain and wet weather during the winter, at least my 36 colonies wintered nicely out-of-doors almost without a protection. So much for the winter, and now for the notes.

June 12, 1892—Spring has been very cold and wet up to the present time. To-day it is very hot, with a temperature running up into the 90's. The white clover is begging to bloom now, it being about two weeks behind the usual time. The white clover honey crop seems to be favorable.

June 19.—First swarm to-day. Light flow of honey from some source. Excessive rains.

June 26.—The past week has been one of excessive rains and violent displays of electric storms, causing the temperature to fall to the 60's. The white clover is abundant, and in full bloom, but owing to so much rain the bees can hardly gain a living. No swarms this week.

July 3.—The past week has been cold, with only one new swarm. No surplus honey has been gathered yet. Clover is in full bloom yet.

July 10.—The greater portion of last

week was favorable for the honey-flow, with plenty of sunshine and continuous warmth.

July 17.—The past week was cool. White clover is in full bloom. Basswood commenced to bloom on the 14th. Bees are bringing in considerable honey.

July 24.—The past week closed the white honey season with me.

It must be remembered that extreme rains and cool weather had something to do with this season. I had a nice lot of surplus honey that season. So much for the season of 1892.

The fall of 1892 was dry and warm up to Nov. 17th, when our first heavy snow fell, and continued to fall during the winter of 1892-93. This winter every one remembers.

We will hurry on to our notes for May 12, 1893, viz.: Bees wintered in the cellar in good condition. White clover is abundant.

May 21.—The average temperature of last week was low, but was rising the latter part. Apple, plum and dandelion is in full bloom. Bees are gathering stores from these sources.

May 28.—Temperature has been cool. Everything in good growing condition.

June 4.—Bees gathering some honey from white clover. First swarm to-day.

June 11.—Honey is coming in rapidly from white clover and wild blackberry. Warm and rainy.

June 16.—There is a heavy flow of honey from the locust trees (of which there are many around our house), which gives a good quality of honey.

July 6.—Bees are working hard on white clover. Basswood is coming into bloom, and the outlook is good.

July 19.—The honey-flow from basswood and white clover has come to a full stop.

As this practically ended my honey harvest for last season, I will not draw from my notes any farther, only to say that the bees gathered sufficient stores in the fall to winter on, the weather being too dry in the fall for the flowers to secrete nectar.

The season of 1893 gave me more honey per colony than any season in the past six years. On Nov. 21, 1893, our first heavy snow fell, and a continuance of cold and snow up to about the 15th of December, then we had some nice weather mixed in with rains, up to the present time.

I give these notes for what they are worth. If they prove nothing more than to be interesting to the casual reader, then I am satisfied.

Andrew. Iowa.

Mr. P. J. Mahan—Something Historical.

Written for the American Bee Journal

BY C. J. ROBINSON.

On page 814 (1893), appears an inquiry as to the whereabouts of Mr. Mahan. The inquirer mentions that "Mr. Phineas J. Mahan left here (Philadelphia) in the latter part of 1859, for Texas." Evidently the inquirer, Mr. Wm. N. Huntington, is mistaken as to dates. Mr. P. J. Mahan advertised Italian queens for sale in the early issues of the first volumes of the AMERICAN BEE JOURNAL that made its *debut* in January, 1861, which was first published in Philadelphia, by A. M. Spangler & Co., who were publishers of the *Farmer and Gardener*. The lamented Samuel Wagner was editor of the AMERICAN BEE JOURNAL, and Mr. P. J. Mahan was *the* prompter of the enterprise, and pursuaded the publishers of the *Farmer and Gardener* to undertake the venture into an unexplored field of periodical literature. Mr. Samuel Wagner, the brilliant scholar, possessing shining talents, resided at York, Pa., where he was cashier of the York bank. He was formerly a resident of Europe, and well versed in bee-literature of foreign countries, particularly throughout Germany.

Early in the summer of 1859, I joined with P. J. Mahan, who was an enthusiastic bee-fancier, in an effort to get Italian bees. Mr. Wagner had failed in two attempts to import from Dr. Dzierzon's apiary—first in 1856, the bees having perished on the voyage. The years following a few colonies were ordered by Messrs. Wagner and Colvin, but the captain of the ship refused to allow the bees on board, fearing for his passengers.

The next attempt to import Italian bees was early in the season of 1859. Mr. P. J. Mahan and I conceived the plan, that is, to induce the Chief of the the United States Agricultural Department (then a branch of the Patent Office), to commission Mr. Mahan to go to Italy, and as Government Agent, to purchase bees in Italy and bring them to the Department to be tested. The official refused to send Mr. Mahan, but transmitted an order to Mr. S. B. Parsons, who was acting as Government Agent in Europe, to send forward a few colonies of Italian bees. The attempt proved a failure so far as the Government was concerned, but Mr. Parsons got the bees—the "Parsons importation" we have read so much about. See

Official Report of Agricultural Department of Patent Office, for 1859–60.

Soon after Mr. Mahan was refused a commission as aforesaid, he sailed on a voyage to visit Dr. Dzierzon and the Baron of Berlepsch, and obtained Italian queens of both these noted apiarists. On his return homeward, he shipped his bees and took passage in the vessel in which were a few colonies of bees forwarded by Dzierzon, as per order of Wagner and Colvin. Mr. Mahan succeeded in landing the first living Italian bees that ever buzzed on the Amerian Continent—and he was the first who bred Italian queens in America. He returned from Germany in September, 1859. The Wagner and Colvin bees did not survive the winter of 1859–60.

Mr. Mahan continued to hail from Philadelphia until late in 1861, and I had relations with him as late, I think, as 1862. I lost sight of him while engaged in army matters, and have supposed that he died.

Mr. Huntington, it must be, is also mistaken in his mention of Mr. Langstroth being a resident of New Jersey in 1859—the year after he removed from Greenfield, Mass., to Oxford, Ohio. Mr. Langstroth mentioned in the AMERICAN BEE JOURNAL, page 82, 1881, that he "called upon Mr. Mahan on my way" *en route* from Oxford to Flushing, N. Y., *via* Philadelphia, "he [Mr. Mahan] being joint owner with me of a large interest in my patent hive. He gave me a graphic account of his visit to the apiary of the Baron von Berlepsch, from whom he obtained a queen." He "obtained" a few queens, as I have said, of Berlepsch and Dzierzon.

Be it ever remembered that Mr. Phineas J. Mahan was the first who made a voyage to Europe expressly to obtain Italian bees, and brought them hither—the first to land them on this continent alive, and the first who bred Italian queens in this country; and he was the inciter of the undertaking in founding the current AMERICAN BEE JOURNAL.

Richford, N. Y.

How to Destroy Burrowing Animals.

Written for the American Bee Journal

BY A. C. TYRREL.

Mrs. Atchley desires to know how to "rid her apiary of skunks." Trapping has been recommended as the "best way," but every one knows, who has trapped or shot the "varmints," that the perfume emitted when they are thus killed is more pungent, penetrating and lasting than Lundborg's celebrated extracts. *If* she knows where the animals burrow, asphyxiate them with bisulphide of carbon, which is the cheapest, simplest and most effective method yet devised for destroying the pests, and all other burrowing animals. The method of using it as recommended in the report of the Secretary of Agriculture for 1892, briefly stated, is as follows:

"About three table-spoonfuls for prairie-dogs, or two table-spoonfuls for spermophiles, should be poured upon a bunch of rags or waste, which should be immediately placed within the mouth of the burrow, and the burrow closed. (Crude bisulphide is much cheaper and better than the pure article.) Care should be taken in using it, as it is both inflammable and explosive.

"Its efficacy depends on the fact that its vapor is heavier than air, and when introduced into burrows, flows like water into all the recesses. This fact should be borne in mind in using it on sloping ground or in cases where there is reason to suppose that the holes contain water, as unless the poison is introduced at the highest opening of the burrow, a certain part of the hole will remain free from it, and here the animal may take refuge. If the holes contain water, this may act as a water-trap, preventing the diffusion of the vapor."

As to the above being an effective method of destroying prairie-dogs, I can testify of my own knowledge. A friend in two seasons succeeded in depopulating a large "prairie-dog town" on his farm, and I believe there is not a dog alive to-day on the premises. This land now produces good crops, which but a few years ago was overrun by dogs and rattle-snakes.

It has proved to be "a safe and an effectual means of putting an end to the constantly increasing inroads of the ground-squirrel upon the grain-fields of the State" (California), says Prof. E. W. Hilgard, of the University of California, who originated the bisulphide method of destroying burrowing mammals.

Gardeners, bee-keepers and others in this State, who have had their gardens, orchards and vineyards destroyed by pocket-gophers, will find speedy relief if the remedy be properly applied—the B. Carbon route to the happy burrowing grounds will not fail.

Farmers can kill prairie-dogs, wolves, rabbits and ground-squirrels much more

week was favorable for the honey-flow, with plenty of sunshine and continuous warmth.

July 17.—The past week was cool. White clover is in full bloom. Basswood commenced to bloom on the 14th. Bees are bringing in considerable honey.

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May 21.—The average temperature of last week was low, but was rising the latter part. Apple, plum and dandelion is in full bloom. Bees are gathering stores from these sources.

May 28.—Temperature has been cool. Everything in good growing condition.

June 4.—Bees gathering some honey from white clover. First swarm to-day.

June 11.—Honey is coming in rapidly from white clover and wild blackberry. Warm and rainy.

June 16.—There is a heavy flow of honey from the locust trees (of which there are many around our house), which gives a good quality of honey.

July 6.—Bees are working hard on white clover. Basswood is coming into bloom, and the outlook is good.

July 19.—The honey-flow from basswood and white clover has come to a full stop.

As this practically ended my honey harvest for last season, I will not draw from my notes any farther, only to say that the bees gathered sufficient stores in the fall to winter on, the weather being too dry in the fall for the flowers to secrete nectar.

The season of 1893 gave me more honey per colony than any season in the past six years. On Nov. 21, 1893, our first heavy snow fell, and a continuance of cold and snow up to about the 15th of December, then we had some nice weather mixed in with rains, up to the present time.

I give these notes for what they are worth. If they prove nothing more than to be interesting to the casual reader, then I am satisfied.

Andrew. Iowa.

Mr. P. J. Mahan—Something Historical.

Written for the American Bee Journal

BY C. J. ROBINSON.

On page 814 (1893), appears an inquiry as to the whereabouts of Mr. Mahan. The inquirer mentions that "Mr. Phineas J. Mahan left here (Philadelphia) in the latter part of 1859, for Texas." Evidently the inquirer, Mr. Wm. N. Huntington, is mistaken as to dates. Mr. P. J. Mahan advertised Italian queens for sale in the early issues of the first volumes of the AMERICAN BEE JOURNAL that made its *debut* in January, 1861, which was first published in Philadelphia, by A. M. Spangler & Co., who were publishers of the *Farmer and Gardener*. The lamented Samuel Wagner was editor of the AMERICAN BEE JOURNAL, and Mr. P. J. Mahan was *the* prompter of the enterprise, and pursuaded the publishers of the *Farmer and Gardener* to undertake the venture into an unexplored field of periodical literature. Mr. Samuel Wagner, the brilliant scholar, possessing shining talents, resided at York, Pa., where he was cashier of the York bank. He was formerly a resident of Europe, and well versed in bee-literature of foreign countries, particularly throughout Germany.

Early in the summer of 1859, I joined with P. J. Mahan, who was an enthusiastic bee-fancier, in an effort to get Italian bees. Mr. Wagner had failed in two attempts to import from Dr. Dzierzon's apiary—first in 1856, the bees having perished on the voyage. The years following a few colonies were ordered by Messrs. Wagner and Colvin, but the captain of the ship refused to allow the bees on board, fearing for his passengers.

The next attempt to import Italian bees was early in the season of 1859. Mr. P. J. Mahan and I conceived the plan, that is, to induce the Chief of the the United States Agricultural Department (then a branch of the Patent Office), to commission Mr. Mahan to go to Italy, and as Government Agent, to purchase bees in Italy and bring them to the Department to be tested. The official refused to send Mr. Mahan, but transmitted an order to Mr. S. B. Parsons, who was acting as Government Agent in Europe, to send forward a few colonies of Italian bees. The attempt proved a failure so far as the Government was concerned, but Mr. Parsons got the bees—the "Parsons importation" we have read so much about. See

Official Report of Agricultural Department of Patent Office, for 1859-60.

Soon after Mr. Mahan was refused a commission as aforesaid, he sailed on a voyage to visit Dr. Dzierzon and the Baron of Berlepsch, and obtained Italian queens of both these noted apiarists. On his return homeward, he shipped his bees and took passage in the vessel in which were a few colonies of bees forwarded by Dzierzon, as per order of Wagner and Colvin. Mr. Mahan succeeded in landing the first living Italian bees that ever buzzed on the Amerian Continent—and he was the first who bred Italian queens in America. He returned from Germany in September, 1859. The Wagner and Colvin bees did not survive the winter of 1859-60.

Mr. Mahan continued to hail from Philadelphia until late in 1861, and I had relations with him as late, I think, as 1862. I lost sight of him while engaged in army matters, and have supposed that he died.

Mr. Huntington, it must be, is also mistaken in his mention of Mr. Langstroth being a resident of New Jersey in 1859—the year after he removed from Greenfield, Mass., to Oxford, Ohio. Mr. Langstroth mentioned in the AMERICAN BEE JOURNAL, page 82, 1881, that he "called upon Mr. Mahan on my way" *en route* from Oxford to Flushing, N. Y., *via* Philadelphia, "he [Mr. Mahan] being joint owner with me of a large interest in my patent hive. He gave me a graphic account of his visit to the apiary of the Baron von Berlepsch, from whom he obtained a queen." He "obtained" a few queens, as I have said, of Berlepsch and Dzierzon.

Be it ever remembered that Mr. Phineas J. Mahan was the first who made a voyage to Europe expressly to obtain Italian bees, and brought them hither—the first to land them on this continent alive, and the first who bred Italian queens in this country; and he was the inciter of the undertaking in founding the current AMERICAN BEE JOURNAL.

Richford, N. Y.

How to Destroy Burrowing Animals.

Written for the American Bee Journal

BY A. C. TYRREL.

Mrs. Atchley desires to know how to "rid her apiary of skunks." Trapping has been recommended as the "best way," but every one knows, who has trapped or shot the "varmints," that the perfume emitted when they are thus killed is more pungent, penetrating and lasting than Lundborg's celebrated extracts. *If* she knows where the animals burrow, asphyxiate them with bisulphide of carbon, which is the cheapest, simplest and most effective method yet devised for destroying the pests, and all other burrowing animals. The method of using it as recommended in the report of the Secretary of Agriculture for 1892, briefly stated, is as follows:

"About three table-spoonfuls for prairie-dogs, or two table-spoonfuls for spermophiles, should be poured upon a bunch of rags or waste, which should be immediately placed within the mouth of the burrow, and the burrow closed. (Crude bisulphide is much cheaper and better than the pure article.) Care should be taken in using it, as it is both inflammable and explosive.

"Its efficacy depends on the fact that its vapor is heavier than air, and when introduced into burrows, flows like water into all the recesses. This fact should be borne in mind in using it on sloping ground or in cases where there is reason to suppose that the holes contain water, as unless the poison is introduced at the highest opening of the burrow, a certain part of the hole will remain free from it, and here the animal may take refuge. If the holes contain water, this may act as a water-trap, preventing the diffusion of the vapor."

As to the above being an effective method of destroying prairie-dogs, I can testify of my own knowledge. A friend in two seasons succeeded in depopulating a large "prairie-dog town" on his farm, and I believe there is not a dog alive to-day on the premises. This land now produces good crops, which but a few years ago was overrun by dogs and rattle-snakes.

It has proved to be "a safe and an effectual means of putting an end to the constantly increasing inroads of the ground-squirrel upon the grain-fields of the State" (California), says Prof. E. W. Hilgard, of the University of California, who originated the bisulphide method of destroying burrowing mammals.

Gardeners, bee-keepers and others in this State, who have had their gardens, orchards and vineyards destroyed by pocket-gophers, will find speedy relief if the remedy be properly applied—the B. Carbon route to the happy burrowing grounds will not fail.

Farmers can kill prairie-dogs, wolves, rabbits and ground-squirrels much more

easily and cheaply than by poison; try it and be convinced.

Whenever rats burrow under corn-cribs, out-buildings or in cellars having no outside outlet, the carbon can be applied most effectively, and no stench will be created.

If, however, skunks are numerous in Mrs. Atchley's neighborhood, it may require united effort on the part of her neighbors to destroy the animals; but if they burrow on her premises, she can soon put an end to their depredations.

Madison, Neb.

Wintering the Bee-Keepers, Not Bees.

Written for the American Bee Journal

BY ED. JOLLEY.

Other winters the problem of wintering the bees appeared to be uppermost in the minds of the bee-keepers, but now it is the wintering of the bee-keepers themselves, or, rather, what the bee-keeper can profitably take up in connection with bee-keeping, so as to have winter employment as well as in summer.

As bee-keepers are of different tastes, different classes, and different localities, it makes it necessary to air out a lot of odds and ends that will work with bee-keeping. As to bee-keepers, we will have to make about three classes.

The first class will take in the bee-keepers of the learned professions, such as doctors, lawyers, ministers, etc., who keep a few colonies of bees for pleasure or recreation; others, with a desire to study their natural history, and as they keep only a few colonies their work is from a scientific up-to-the-times object. It is this class who have carried the light into mysteries of bee-keeping, and have marked out the paths we are all trying to follow. Their experiences have been very valuable to the bee-keeper, and as they could spare the time from their professions in the summer to keep the bees, if they have as much time to spare in the winter how could they better spend it than by giving us a few good articles on bee-keeping, and its different branches?

The second class is composed of people (lady bee-keepers are included in this class) of nearly every avocation. They keep anywhere from two to twenty colonies, because they think they "work for nothing and board themselves." It was an unlucky day for the bee-keeping fraternity when this class joined them. They never have enough honey to sell to be of much advantage to themselves, but enough to be to the everlasting disadvantage of the specialist who is trying to make his living by bee-keeping. They occasionally have a few sections full of honey travel-stained inside, and liberal daubs of propolis outside. They spend little or no time with the bees, and the cost of producing this honey is very small, and they can afford to take a very small price for it and still have more profit than the systematic bee-keeper; thus not only establishing the low prices that are everywhere crippling the pursuit, but disgusting the public against honey.

To the above class I would say, by all means subscribe for one or more bee-papers, and get some good standard work on bee-keeping, and post up yourselves a little. If you are going to be a bee-keeper, get into line, keep up with the procession, or abandon the business. If it was not for this class, the specialist would not be so much in need of some other employment to help him out.

In the third class, I would include all not included in the others; that is, all those who make bee-keeping their main business, other things being a side issue. To this class I would say, your tastes, location and means of taking advantage of what may turn up for you, ought to guide you in this matter. There are many things that work nicely with bee-keeping. Poultry-raising goes very nicely with bee-keeping, and where they are properly taken care of in the winter, there is money in the business. I notice that writers in the *Progressive Bee-Keeper* advocate horticulture and small fruits. That is a very nice business, but, like bee-keeping, it is rather a sleepy job in the winter. We have a man in our neighborhood who does an extensive nursery business, and keeps about 100 colonies of bees.

Another bee-keeper, who is a plasterer, and your humble servant is employed at an oil-refinery, but is going to adopt bee-keeping as his life-long job. But I think the majority of bee-keepers have about all they can do to dispose of their last year's crop, and get ready for another year.

The winter is the proper time to order your supplies, put hives together, fold sections and fill them with foundation; fill crates and get everything ready that you can for summer work. Repair everything about the place that is in need of repair, and then, if you have any time left, do anything that turns up, and do

it well; and, above all, keep yourself well informed on all that is going on in the bee-keeping world, and on the current events of the day.

Franklin, Pa.

The California State Convention.

Report sent to the American Bee Journal

BY JOHN H. MARTIN.

The California State Bee-Keepers' Association was called to order in the Chamber of Commerce at Los Angeles, on Jan. 23rd, at 10 a.m., by President J. F. McIntyre.

The minutes of the last meeting were read and approved. Upon motion by Mr. Brodbeck, an opportunity was given for the enrollment of names and the payment of dues.

Treasurer G. W. Woodbury then presented his report, which was accepted.

The Secretary reported in relation to the various matters upon which he was requested to correspond, and his report was accepted.

Mr. Pryal, who was appointed at the last meeting to present the claims of the association to the State Legislature for State aid for the furtherance of our industry, sent in his report, which was read by the Secretary. The report was encouraging for future efforts along this line.

The President then appointed the following committees:

ON RESOLUTIONS.—A. Barnett, G. A. Millard, W. T. Richardson.

LEGISLATION.—Prof. A. J. Cook, Geo. W. Brodbeck, Wm. A. Pryal.

MARKETING HONEY.—J. G. Corey, L. T. Rowley, Robert Dunn.

TRANSPORTATION.—R. Touchton, M. H. Mendleson, L. E. Mercer.

BEES AND FRUIT.

The regular programme was then taken up, and an essay was read by Francis W. Blackford, entitled, "Is the honey-bee in California the fruit-producer's enemy?" This was followed by a discussion.

It was claimed that with proper protection of drying fruit that the damage done by bees could be greatly reduced. It had been observed that there was a dozen yellow jackets to one bee in many instances, but the bee was the only offender to receive the blame. It had been demonstrated by repeated experiments, that bees were of more use in the fertilization of prunes than in the damage they could do to the drying fruit.

Following this discussion Mr. Corey read an essay upon the topic, "Bees and Fruit-Drying." It was suggested by Mr. Brodbeck that the drying fruit should be covered with cloth.

Mr. McIntyre figured that it would take 4,480 yards of cloth to cover an acre, at a cost of $121, which was considered as a little too expensive a remedy.

Prof. Woodworth suggested that the bees be enclosed in a large tent. This remedy was pronounced impracticable by the experienced bee-keepers.

AFTERNOON SESSION.

A communication was received from the Los Angeles County Convention, upon the subjects of adulteration and the tare on honey-cases, which was received and put on file for future reference.

President McIntyre then read his annual address, and touched upon several points of vital interest to the bee-keepers of the State, upon which action was afterward taken by the various committees.

An ordinance adopted by the San Bernardino Board of Supervisors, giving wide powers to its inspector of foul brood for the extermination of the disease, was read by the Secretary. A resolution was offered commending the Board of Supervisors of said county for their wise action, and a recommendation that other counties follow their example.

TARE ON HONEY-CASES.

Tare on honey-cases was the next topic by Mr. Corey.

Mr. Touchton spoke in favor of concerted action in relation to establishing a uniform tare.

Mr. Levering said we should allow tare only on the cases, and not on cans, for they were sold again for other purposes for full value. Dealers wanted three cents tare on cans that weighed less than 2½ pounds. This excess was unjust and unfair.

Mr. Mendleson figured that he lost 1,438 pounds on his crop of honey by this unjnst tare.

Mr. Levering then presented some pertinent facts in relation to the utility of the bee in fertilizing the orange blossoms. Specimen oranges were shown, demonstrating that the navel and Malta blood oranges were changed or mixed by this interchange of pollen. The same effect is produced upon water-melons and pumpkins.

Mr. G. W. Brodbeck presented an essay upon various subjects, reading his essay as "A Medley."

Mr. Corey discussed the cost of the production of a ton of honey. According to his figures the cost was near $250.

HIVES AND BROOD-CHAMBERS.

Mr. Corey was called upon to describe the hive used in Ventura county, and which is a standard for that county. This hive contained nine Langstroth frames in the brood-chamber, and eight in the super.

Mr. Touchton said he brought this hive into existence, and it is known as a modified Langstroth. The frame of this hive is of the following dimensions. Top has 19⅛, bottom has 17⅛, end has 8⅛ inches.

Upon a rising vote for the adoption of this hive by the bee-keepers of the State, 17 voted aye, with no opposing vote.

Mr. Mercer advocated a shallow devisible brood-chamber hive for comb honey, using a hanging frame 6 inches deep.

Mr. Woodbury claimed that he lost many pounds of honey by using a large brood-chamber. The bees are determined to fill the outside frames before going into the super, while with a shallow hive the bees are compelled to go into the super to store their honey. He uses a hive 4¾ inches deep, or a frame that will take a 4¼-inch section.

Mr. Hatch preferred a large brood-chamber for comb honey. He interchanges frames and spreads brood until he fills the hive with bees.

Mr. Rowley spoke in favor of the Heddon hive for the production of comb honey, for the reason that the bees would put all the honey in the super.

Mr. Woodbury uses two of these chambers for brood, or even more, and thus escaped the use of handling frames; in fact, this system was called the handling of hives instead of frames.

Mr. Compton, foreman of Mr. Heddon's apiaries for several years, spoke in favor of the Heddon hive, and would use it in preference to any other.

Mr. Corey preferred the good old way of examining frames, and he had no desire for these new fangled methods.

Mr. Barnett preferred to use dummies to contract the brood-chamber of a large hive. The shallow-chamber advocates considered this plan as of too complicated a nature.

BEE-ESCAPES AND HONEY-BOARDS.

A question-box feature was then introduced, and the question, "Shall we use bee-escapes and honey-boards?" called out much discussion.

Mr. Corey did not wish to use only one, and thought they were of not much use as labor-savers. He could brush bees off the combs quite rapidly.

The Secretary used the escape and queen-excluder with success; preferred to use it on hives having two supers above the brood-chamber. The escape was put on the hive at night, and the next morning the bees were usually all out; the hive could then be readily removed to the extracting-room, making the work through the heat of the day in the comfortable shade of the house.

Mr. Barnett used a home-made escape, and used no queen-excluder. He never had queens get into his supers, but thought the escape a good thing to clean the supers of bees when working them for comb honey—the bees were not so liable to bite the caps of the cells.

Mr. Powell believed that bees would not bite the cappings if the bees were driven out rapidly with smoke. His plan was first to smoke them down, placing an empty super under the one to be removed. When the most of the bees had gone down, the smoke was blown into the under side, and all of the bees were driven out. He claimed that this method was very expeditious.

THE GOLDEN ITALIAN BEES.

The question of the merits of golden Italian bees was then taken up.

Mr. Williamson called this strain of bees "red devils."

Mr. Rowley claimed that this strain of bees capped their honey thinner than the black bees.

Mr. Powell said black bees capped their honey so as to leave an air-space under the cap, giving it a very white appearance.

President McIntyre advocated breeding a superior race of bees, and always sought to find the best. He had ordered queens from all the noted breeders, and

held fast to that which is the best. He considered the Syrian crossed with the Italian as the best all-purpose bee. He believed in rearing large queens, and his bees were of such size that only one in 400 came through perforated-zinc honey-boards. His queens were reared from colonies that were superseding the old queen; he selects one having plenty of cells and larvæ, uses the Doolittle cell-cups, and transfers a good quantity of royal jelly with the larvæ. The cells were completed while the old queen was still in the hive. The cells should be hung between combs filled with larvæ.

Mr. Searles prefers Albino bees to any other for gathering honey.

In Mr. Levering's experience, the Holy Land and Italian bees will fly farther for honey than blacks, and many times will work by moonlight.

President McIntyre had tried the Carniolan bees, and found them good honey gatherers, but as he had a good strain of Italians, he did not wish to mix the varieties.

Mr. Brodbeck had reared queens successfully in the super above the queen-excluding honey-board.

PREVENTION OF ROBBING.

Question—"How to prevent robbing."

Mr. Barnett found that fresh paint daubed on the hive around the entrance was a preventive.

Mr. Touchton used a handful of wet grass.

Pres. McIntyre used a trap, removed the hive that was being robbed, put in its place the trap, and caught all the robbers. At night the robbers were released, and seldom commenced operations the next day.

Mr. Wilkins could usually pick out a queenless colony by noticing the robber bees that were prying around.

(Concluded next week.)

☞ **Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.**

Source of Water-White Honey.

In the BEE JOURNAL of Nov. 30th, Mrs. B. J. Livingston asks for the source of water-white honey gathered about Aug. 25th. It is a pleasure to know where the honey comes from as well as where it goes. Thanks to Mr. Muth for his explanation of where the honey goes, as given in the BEE JOURNAL for Oct. 12, 1893.

For two years I was at a loss to know where this water-white honey came from, but by following the bees the mystery was solved. I cannot give the botanical name, but it comes from a species of mint that grows about a foot in height, and usually in low lands. Here it grows near the bayous or old river beds, between the slough proper and the dry ground; also in the grass in many of the low "runs" on the bottom-lands. I have seen it on the accretions next to the Missouri river, where there were small trees and willows. Bees seem partial to this mint, neglecting most other sources while this yields honey.

Glen Ellen, Iowa. L. M. BROWN.

How Can I Move the Bees?

I have something which at this time is perplexing me more than any problem I have met with since I commenced bee-keeping two years ago, and it is this:

I have moved away from New Sedalia, Tenn., and now live at Shawanee, 30 miles from my old home. I have at my old place 14 colonies of fine Italian bees, in hives made after the fashion of Root's 8-frame dovetailed hives, 8 good combs to the hive. They were in splendid condition when I put them away for winter. The frames hang on nails driven in the ends of the top-bars, and the bottom-boards project ⅛ inch on the sides from the hive, and 2 inches at the ends, and cover the same. Now comes the trouble with me:

I want to move them to my new home, and it has to be done in a wagon, hack or something of the kind, and I have studied, and studied, and studied, how to manage them, and have never exactly studied out a plan that would suit me. Now can some brother bee-keeper help me out of my trouble, by suggesting a plan for me? I

don't care how many may make suggestions—I will gladly listen to all.

Yes; I hear some one making this suggestion: "Sell your bees at New Sedalia and buy bees at Shawanee." Well, that would do very well if it suited *me*, but the fact is it doesn't exactly suit me at this time. I have four queens that I bought last spring, that I wouldn't give for half the bees in five miles of this place, and there are a good many bees around here, too. Another reason it don't suit me, I have my bees fixed up in a style that suits me, and I don't want to have to commence anew. Let me hear from several through the BEE JOURNAL. C. H. COLEMAN.

Shawanee, Tenn., Feb. 8.

Methods of Cellar-Wintering.

My first plan was top ventilation with absorbents to receive the moisture. My second was tight tops with 3-inch ventilation at the bottom. My third was to cover the bottom of the cellar with leaves, and tier up just as I took the hives from the yard, leaving the entrance wide open. I have lost but two colonies in five winters, both the result of neglect. I have now 109 colonies in the cellar, tiered five high, just as I took them from the yard. Probably two quarts would cover the amount of dead bees in my cellar up to date.

I am satisfied with this last method, and will experiment no further.

JOHN B. BLACK.

Pattonsburg, Mo., Jan. 26.

Cold Weather—Basswood and Clover.

As I write sitting by the fireside with plenty of good dry wood for fuel, we manage to keep warm. We bundle up well when we go out, for we are now having very severe cold weather—10 to 25 degrees below zero, with plenty of snow for good sleighing.

The bees are in the cellar (60 colonies), and are, to all appearances, wintering well. They have good supplies of nice basswood and clover honey for food, for we are in one of the best localities for basswood and clover honey there is. I think I can safely say that I have taken nine pounds of clover and basswood honey to one of any other sort during the last ten years.

A. C. SANFORD.

Ono, Wis., Jan. 24.

Bees Wintering Well So Far.

Bees are in good condition, and are wintering well so far. I have packed seven hives with chaff, and the rest are without protection. The winter up to Jan. 18th was very mild and warm, and there were but few days that the bees could not fly. The first rain we had since July 12th, to amount to anything, fell on Jan. 19th and 20th; it was the longest drouth we had for many years. Cisterns, ponds and creeks were almost all dry. January 24th and 25th were the coldest days we have had so far, the mercury on Jan. 24th was 15 degrees below zero, and 12 degrees below on the 24th.

Like Mr. W. Z. Hutchinson, of Flint, Mich., I am interested in photography. So I got a small camera and outfit this winter, and am now learning how to take photographs. Bee-keeping and photography are good enough for me.

The BEE JOURNAL is indeed a very fine paper, and all progressive bee-keepers should read it. FRANK N. BLANK.

Prairie Home, Mo., Jan. 27.

Had No Bees to Gather the Nectar.

Bees are wintering well, and are very quiet in the cellar, with plenty of honey. The honey crop would have been very large the last season if we had had the bees to gather the nectar, but during the cold and wet month of May, almost all the colonies were killed, leaving a good many with no bees at all. It was the worst spring I have had in the last 32 years.

CHAS. H. WIELE.

Stoddard, Wis., Jan. 24.

Bees in Fine Condition.

The winter has been exceptionally fine up to date. Day before yesterday (Jan. 17th) the thermometer registered 70 degrees in the shade, at our apiary a mile south of town. Our bees are in fine condition, on the summer stands. We examined a couple of colonies, and found a patch of sealed brood in one as large as a man's hand, and eggs and larvæ in all stages.

W. J. CULLINAN.

Quincy, Ills., Jan. 18.

Honey Predictions for Iowa.

As requested, I will give the bee-keepers of Iowa my predictions of the white honey-flow for this year, from linden and white clover. The flow won't be as good as last year. It will be better in the eastern part of the State, as a general thing. The worst failure will be in the extreme southwestern part. Let all bee-keepers watch, and see how close I hit it.

By the way, I would like to know how "Coon Rapids" got along in getting honey last year. He said he would get 100 pounds, if my predictions hit as well as they did the year before. I would like to hear from Mr. Johnson. SAM WILSON.

Cosby, Tenn., Feb. 9.

Best Crop of Honey They Ever Had.

Our bees were in good condition on Jan. 20th. They had a good cleansing flight. We had 6 colonies, then 2 swarms came to us last summer, and they went into the hives as nicely as could be, and then went to work with a good will. The crop of honey was the best last year we ever had. My wife takes great interest in the bees with me. We run a small fruit farm, and think the bees do much to help fertilize the

fruit-blossoms. We have some stock, but the chickens make such a nice part with all the others, and go with the bees nicely.

We enjoy the BEE JOURNAL so much, and think some of the writers are so good. We thought when reading Mrs. Atchley's account of the preachers and bee-wagon, that when the preachers were playing lion there was a possible chance for a bear. We like the Chinaman's writing, also.

JOEL T. HODSON.

Bangor, Iowa, Jan. 27.

A Prosperous Year was 1893.

Last year was a very prosperous one for me, as I secured about 4,000 pounds of honey from 43 colonies, spring count. If I do as well this year, I will be well pleased.

I am very busy building now, enlarging my poultry business. I will probably raise 4,000 ducks this year, besides a large number of chickens; so with a farm and 75 colonies of bees, I have my hands full to look after every thing. This has been a very warm winter so far, and my bees are wintering finely. I have lost none so far. They had a good flight this week.

The BEE JOURNAL is always welcome.

EDGAR BRIGGS.

Poughkeepsie, N. Y., Jan. 27.

Poor Season for Bee-Keeping.

The bee-business has been very poor for the last three seasons in this part of the country, the last one being the poorest of them all. The springs have been cold, backward and rainy, so much so that the bees could not breed up in time to gather any surplus. We winter most of our bees on the summer stands, in double-walled hives. The colonies that are light in stores we winter in the cellar, with good results.

M. ZAHNER.

Shawnee, Kans., Jan. 28.

Rough Weather in Southwest Texas.

Our oranges and bananas have got the "grip," and they have got it badly, poor things—victims of their own recklessness. Every well regulated ranchman out here has constantly on hand, during the winter, an extra suit of flannels, which he gets into immediately when Dame Nature gets on a tantrum, but they, unsophisticated, and not yet acclimated, insisted on keeping on their summer clothes, and the grip—Jack Frost—has got them sure enough; that is to say, if there are any.

I wrote a week ago that we had had nothing but spring weather; there had not been a day until last Tuesday (Jan. 23rd) that bees did not get a little pollen—no honey. On Monday morning, the 22nd, we had a warm shower. After 10 o'clock it was clear and fine—90 degrees above zero at noon, 70 degrees above at sunset, but just at dark a genuine "Norther" came down, and it came to stay. It filled the air with dirt, sand, and everything that it could lay its hands on, and at midnight it was down to 30 degrees above zero, and 22 degrees above at sunrise on Tuesday morning, with half an inch of ice.

It continued to freeze in the shade all day Tuesday, and Wednesday morning it was 20 degrees above at sunrise, and continued to freeze in the shade all day Wednesday, and Thursday morning it was down to 18 degrees above, with 1¼ inches of ice, and continued to freeze until Thursday afternoon.

Well, it is fortunate for bee-men that it came as soon as it did. All of the earliest honey-plants were budding, and a few had a little bloom; two or three weeks more of the warm weather would have brought all the flora forward so that the freeze would have made the honey-crop a complete failure for the year, unless we should chance to have rains in the fall.

January 27. SOUTHWEST TEXAS.

Doing Nicely in the Cellar.

Bees are doing nicely in their winter quarters. I have got 19 colonies in the cellar. I raise the hive 2 inches from the bottom-board, put a stick one inch thick in the center, sharp at both ends, across the brood-frames, and put on the cloth cover, then fill the top with clover chaff for an absorbent, and lift the cover up ¼ inch by placing small sticks in under the covers. The mice bothered them some, but I put out some strychnine on pieces of cheese, and melted it in. If any of my brother bee-keepers have a better remedy than this, please let us hear from them through the BEE JOURNAL.

FRANK COLE.

Mecosta, Mich., Jan. 29.

Gathering Honey in Florida.

I am off on a bee-hunt to-morrow, in the cypress swamps, and later I will try to report our success. My colony left on my veranda last May, is still here, and has worked every day for the last four weeks. Peach and plum, jassemine and other flowers, are in full bloom, and honey is coming in fairly well. Bees are building up rapidly.

One hundred quarts of strawberries were shipped out by express yesterday, by one man. It does not seem like winter here. The trees are full of oranges, and new wood 8 to 10 inches long. Grass is green, and mocking-birds and robins are singing.

C. F. GREENING.

Orange Park, Fla., Feb. 6.

He is Not Complaining.

I have been a bee-keeper for about eight years, commencing on a small scale. I have learned to like the business, and would keep bees for pleasure if nothing more.

Last spring I had a sale, at which I sold all of my bees and appliances, and inside of one month I had purchased about 80 colonies, mostly in Langstroth chaff hives, with all necessary appliances. I have both 8

and 10 frame hives. I rather prefer the 8-frame hive for comb honey.

Last year was not a good one for bees in this locality. I got only about 800 pounds from 80 colonies, but considering that I got 20 cents per pound for most of it, they paid me fairly well; at least do not understand me to be complaining, as I am living in hopes of something better next season. And then, I take the AMERICAN BEE JOURNAL, you know; that helps to tide a fellow over a bad season without becoming discouraged. U. G. SMITH.

Bardolph, Ills., Jan. 30.

Past Season in Southwestern Ohio.

We had an excessively wet spring last year, and no fruit-bloom honey, consequently an almost total failure of the fruit crop. We had a short flow of very fine honey the last of May, and a very rapid increase in weight of hives, which was stopped entirely by an excessive drouth early in July. There was very little fall flow of nectar. I left plenty of winter stores in the hives. I don't think my bees were ever in better condition for winter. The yield was 12 pounds per colony, spring count. I lost several colonies trying to make two colonies store in the same super. The colonies joined did not fight. My losses were caused by inability to attend to the united colonies at the proper time. This section is too highly farmed to be a profitable location for the specialist in bee-culture. JAS. A. SCOTT.

Symmes' Corners, O., Jan. 28.

Cyprian Bees—Prospects Good.

Having noticed of late a good deal said in regard to the "Cyprian" bees, and their good honey-gathering qualities, as well as of their viciousness, I would like to ask if any of the BEE JOURNAL have this "strain" of bees in their purity, or crosses? If so, will they kindly communicate with me?

The prospects are good for the coming spring crop, and having access to early "forage" pasturage, bees are in excellent condition; many colonies having 4 and 5 Langstroth frames of brood, representing a force of 20,000 to 25,000 in brood stage. This means 40,000 to 60,000 bees to the colony for the harvest, which will be upon us in thirty days, and last two to three weeks. A. F. BROWN.

Glenwood, Fla., Jan. 31.

Successful "Hibernation" Expected.

Bees appear to be wintering well. We are having comparatively mild weather, with a moderate snowfall, and the prospects of a successful "hibernation" are very favorable in this vicinity. J. F. LATHAM.

West Cumberland, Maine, Jan. 29.

Great Premium on page 229!

Honey & Beeswax Market Quotations.

CHICAGO, ILL., Feb. 17.—We are encouraged by last week's business, disposing of considerable light honey in a small way at low prices—13@14c. It is impossible to obtain higher prices at present. We quote: No. 1, 13@14c.; extracted, 5@6½c. Beeswax, 21@23c. We have inquiries for beeswax, with none to offer. J. A. L.

ALBANY, N. Y., Jan. 14.—The honey market is in a slow and unsatisfactory condition. Very little demand for any and large stocks of both comb and extracted. Quotations would be only nominal. H. R. W.

CHICAGO, ILL., Jan. 25.—While the volume of trade in honey is not large there is an improved tone thereto We obtain 15c. for the best grades of white comb and our stock of this is not large. Grades not quite so good are selling at 14c., with buckwheat and other dark honeys bringing 11@12c. The weather has been too severe recently to permit of shipments being made. Extracted honey we quote at 5@7c. per pound according to quality and style of package. Beeswax, 22c. R. A. B. & Co.

NEW YORK, N. Y., Jan. 24.—There is no change in our market. Trade remains dull with plenty of stock on hand of both comb and extracted honey. Beeswax is selling on arrival at 26@27c. H. B. & S.

CHICAGO, ILL., Jan. 18.—The ruling price for fancy white comb honey seems to be 13c. Other grades of comb will bring from 10@12c. Extracted is selling at 6c. Hard times cause restricted demand. S. T. F. & Co.

CINCINNATI, O., Feb. 8.—Trade is dull in all its branches, honey included. We quote: Extracted, 4@8c. a lb. on arrival; comb, 12@16c. for best white. Supply is good.

Beeswax is in fair demand, at 20@23c. for good to choice yellow. C. F. M. & S.

KANSAS CITY, MO., Dec. 21.—The demand for comb and extracted honey is not as good as we would like to see it. We quote: No. 1 white 1-lb. comb, 14@15c.; No. 2 white, 13@14c.; No. 1 amber, 13@13½c.; No. 2 amber 10@12c. Extracted, white, 6@7c.; amber, 5@5½c. C.-M. C. Co.

List of Honey and Beeswax Dealers,

Most of whom Quote in this Journal.

Chicago, Ills.

J. A. LAMON, 44 and 46 So. Water St.
R. A. BURNETT & Co., 161 South Water Street.

New York, N. Y.

F. I. SAGE & SON, 183 Reade Street.
HILDRETH BROS. & SEGELKEN, 28 & 30 West Broadway.
CHAS. ISRAEL & BROS., 110 Hudson St.

Kansas City, Mo.

HAMBLIN & BEARSS, 514 Walnut Street.
CLEMOMS-MASON COM. CO., 521 Walnut St.

Albany, N. Y.

H. R. WRIGHT, 326 & 328 Broadway.

Hamilton, Ills.

CHAS. DADANT & SON.

Cincinnati, Ohio.

C F. MUTH & SON, cor. Freeman & Central avs.